

Appendix A

Future Emissions Projects for Four Corners Power Plant

WORK COPY



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To: Doug McCourt, Ater-Wynne	From: Stephen B. Etsitty, Executive Director
Fax: 503/226-0079	Pages: 3 including cover sheet
Phone: 503/705-6031	Date: February 13, 2006
Re: Documents as Requested	CC:

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:**

"As Requested, if you have any questions please call me 928/871-7692."

Stephen

**NAVAJO NATION ENVIRONMENTAL PROTECTION AGENCY****OFFICE OF THE EXECUTIVE DIRECTOR**

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Joe Shirley Jr.
PRESIDENTFrank Dayish Jr.
VICE-PRESIDENT

DEC - 6 2005

Deborah Jordan, Director
United States Environmental Protection Agency-Region IX
Air Division (A-3-3)
75 Hawthorne Street
San Francisco, California 94105

RE: Best Available Retrofit Technology (BART) determination for Four Corners Power Plant

Dear Ms. Jordan:

In June of 2001, the United States Environmental Protection Agency (USEPA), Region IX, issued a Title V permit, NN-OP-0066, to Arizona Public Service Company's (APS) Four Corners Power Plant. The Title V permit limits the sulfur dioxide (SO₂) potential to emit (PTE) to a rate of 46,537 tons per year (TPY), with emission control technology designed to capture 72% of SO₂ emissions.

In late 2003, several environmental groups (the Environmental Defense Fund, New Mexico Citizens for Clean Air and Water, Western Resources Advocates, and Grand Canyon Trust), together with the National Park Service and USEPA-Region IX, met with officials from the APS Four Corners Power Plant to discuss SO₂ emissions reductions. As a result of this meeting, the parties agreed to the goal of APS voluntarily increasing its reduction of SO₂ emissions at the Four Corners Power Plant to 85%. An agreement in principle was also reached to use this proposed increase in emissions reductions as a basis for a Best Available Retrofit Technology (BART) determination. The Navajo Nation was neither a participant in the discussions nor a party to any agreement. USEPA acknowledged that the Navajo Nation needed to be involved in any decision-making process regarding emissions reductions and a BART determination.

On November 13, 2003, officials from the Four Corners Power Plant contacted the Navajo Nation Environmental Protection Agency (NNEPA) and conveyed information regarding the plans and decisions made at the above-referenced meeting. The power plant officials requested NNEPA's support for the agreement to increase SO₂ emissions reductions from 72% to 85% and to consider an 85% emissions reduction as BART for the plant. NNEPA informed the Four Corners Power Plant representatives that the facility should achieve an emissions reduction similar to Salt River Project's Navajo Generating Station, which has a 90% emissions reduction rate for SO₂. Subsequently, NNEPA agreed to support the APS SO₂ study, which predicted an 85% reduction, with the caveat that if additional reductions are shown to be possible APS would agreed to implement those reductions.

On July 18, 2005, APS Four Corners Power Plant advised NNEPA that it had completed the SO₂ study. The study indicated that the facility could maintain an 88% emissions reduction as an annual average. APS also committed to even greater reductions whenever possible.

Given the results of the APS study, the Navajo Nation agrees that an 88% removal rate for SO₂ at Four Corners Power Plant appears to be equivalent to BART, especially taking into account the early reductions that will be achieved. The increase by 3% (and perhaps more) over original predictions, which APS achieved in response to the Navajo Nation's concerns, also will be a significant contribution to improved air quality for the Navajo Nation and to the reduction of regional haze.

If you have additional questions relating to these documents, please do not hesitate to contact me at (928) 871-7692 or Mr. Mohan Asthana at (928) 729-4248.

Sincerely,



Stephen B. Etsitty, Executive Director
Navajo Nation Environmental Protection Agency

xc: Gerardo Rios, Chief, Permits Office, Air Division USEPA
Colleen McKaughan, Associate Director, Air Division USEPA
Mohan Asthana, Sr. Environmental Specialist, Air & Toxics Department
Air & Toxics File

*** RX REPORT ***

RECEPTION OK

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Appendix B

BHP Coal Specifications – Past and Future

Issue: There is a concern raised by some regulatory agencies as to whether the sulfur content of coal sourced from the Navajo Mine will increase over the next ten years to greater than 1.1% sulfur by weight.

Explanation: While Navajo Mine will produce coal from individual coal seams having aggregate sulfur contents as high as 1.5% sulfur by weight, the major portion of the recoverable coal resource at Navajo mine averages between 0.70% and 0.90% sulfur by weight.

The long-term average for sulfur content in the coal delivered to the Four Corners Power Plant (FCPP) is shown in the forecasts attached to this explanation. It is not expected to exceed 0.90% sulfur by weight in any year. This forecast is based on recently updated coal quality models and should be considered accurate to within +/- 10%.

Navajo Mine employs a full-time grade control engineer, who manages the blending of run-of-mine coal in the field stockpiles, at the point where the coal is loaded for transport to the processing facility, and again at the stack-out of the processing facility. This integrated ability to blend high-sulfur coal with lower sulfur coal very effectively controls the sulfur content of the delivered coal.

Over time the coal supplied to FCPP will be sourced from different areas of the Navajo Mine. As mining moves south, into Area 4 North of the mine, the overall sulfur content of the delivered coal will elevate slightly from today's averages while BTU values will decrease slightly. This is reflected in the forecast beginning in year 2012.

Navajo Mine does not expect the sulfur content of its product to increase in any fashion other than described in this issue paper and has not engaged in discussions with any customer regarding an increase in the sulfur content of delivered coal.

Coal supplied to the Desert Rock Energy Project will be sourced from areas of the mine where the expected sulfur contents are slightly lower than the sulfur content of coal delivered to FCPP.

Prepared by C. Nelson, BHP Navajo Coal Company, on 27 February 2006.

Provided to G. Eghneim, Sithe Global, on 27 February 2006.

For internal use by Desert Rock Energy Project participants and regulatory authorities only.

Not authorized for release to general public without consent of BHP Navajo Coal Company and Sithe Global.

CY2000 - CY2005 Actuals - As Delivered to San Juan GS and Four Corners PP

SJGS	San Juan Underground Mine	2000	2001	2002	2003	2004	2005
	% Sulfur by Weight	0.794%	0.744%	0.700%	0.725%	0.759%	0.745%
	BTU/Lb	9,360	9,540	9,781	9,650	9,600	9,711
	Lb Sulfur / Ton Coal	15.88	14.88	14.01	14.49	15.17	14.89
	MMBTU/Ton Coal	18.72	19.08	19.56	19.30	19.20	19.42
	Lb Sulfur / MMBTU (Input)	0.85	0.78	0.72	0.75	0.79	0.77
FCPP	Navajo Mine (Surface)						
	% Sulfur by Weight	0.779%	0.773%	0.764%	0.773%	0.752%	0.777%
	BTU/Lb	9,002	8,985	8,872	8,778	8,871	8,945
	Lb Sulfur / Ton Coal	15.58	15.46	15.28	15.46	15.04	15.55
	MMBTU/Ton Coal	18.00	17.97	17.74	17.56	17.74	17.89
	Lb Sulfur / MMBTU (Input)	0.87	0.86	0.86	0.88	0.85	0.87

2/13/2006 Prepared by C Nelson, BHP Navajo Coal Company

2/13/2006 Distributed to G Eghneim, Sithe Global

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10-Year Forecast for Sulfur Content in Coal - As Delivered to San Juan GS and Four Corners PP

SJGS	San Juan Underground Mine	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	% Sulfur by Weight	0.76%	0.70%	0.69%	0.67%	0.66%	0.74%	0.71%	0.86%	0.81%	0.75%	0.72%
	BTU/Lb	9,514	9,610	9,699	9,757	9,642	9,218	9,444	9,717	9,646	9,613	9,849
	Lb Sulfur / Ton Coal	15.22	13.91	13.73	13.46	13.21	14.80	14.11	17.12	16.23	14.99	14.32
	MMBTU/Ton Coal	19.03	19.22	19.40	19.51	19.28	18.44	18.89	19.43	19.29	19.23	19.70
	Lb Sulfur / MMBTU (Input)	0.80	0.72	0.71	0.69	0.69	0.80	0.75	0.88	0.84	0.78	0.73
FCPP	Navajo Mine (Surface)											
	% Sulfur by Weight	0.79%	0.79%	0.78%	0.77%	0.77%	0.78%	0.85%	0.80%	0.80%	0.84%	0.85%
	BTU/Lb	8,933	8,955	8,955	8,945	8,911	8,990	9,005	9,006	8,946	8,878	8,889
	Lb Sulfur / Ton Coal	15.90	15.81	15.60	15.50	15.50	15.70	16.93	16.00	16.10	16.90	17.00
	MMBTU/Ton Coal	17.87	17.91	17.91	17.89	17.82	17.98	18.01	18.01	17.89	17.76	17.78
	Lb Sulfur / MMBTU (Input)	0.89	0.88	0.87	0.87	0.87	0.87	0.94	0.89	0.90	0.95	0.96

Values are indicative and subject to change.

2/9/2006 Prepared by C Nelson, BHP Navajo Coal Company

2/9/2006 Distributed to G Eghneim, Sithe Global

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Appendix C

Consent Decree for San Juan Generating Station

UNITED STATES DISTRICT COURT
DISTRICT OF NEW MEXICO

THE GRAND CANYON TRUST and)
SIERRA CLUB,)
)
Plaintiffs,)
)
THE STATE OF NEW MEXICO,)
)
Plaintiff-Intervenor,)
)
v.)
)
PUBLIC SERVICE COMPANY OF)
NEW MEXICO,)
)
Defendant.)

CV 02-552 BB/ACT (ACE)

CONSENT DECREE

MAR 10 2005

Date lodged in Court _____

Date entered by Court _____

I. BACKGROUND

WHEREAS, on May 16, 2002, Grand Canyon Trust and Sierra Club (“Plaintiffs”) filed a citizen suit against Public Service Company of New Mexico (“PNM”) in the United States District Court for the District of New Mexico in the above cause alleging certain violations of the Clean Air Act (“CAA”) at PNM’s San Juan Generating Station (“San Juan”) near Farmington, New Mexico; and

WHEREAS, Plaintiffs’ complaint alleged that PNM had violated, and was continuing to violate, the twenty (20) percent opacity emission limit at San Juan Units 1, 3 and 4, and that PNM was operating San Juan Units 3 and 4 without a prevention of significant deterioration (“PSD”) permit in violation of the CAA; and

WHEREAS, after discovery, Plaintiffs and PNM filed at least four cross motions for summary judgment on both Plaintiffs’ claims for relief and PNM’s defenses; and

WHEREAS, on May 1, 2003, the Court granted Plaintiffs’ motion for summary judgment on standing; and

WHEREAS, on August 20, 2003, the Court granted PNM’s motion for summary judgment on Plaintiffs’ PSD claim; and

WHEREAS, the Court held a bench trial from November 17-19, 2003, on PNM’s general defenses to Plaintiffs’ opacity claim; and

WHEREAS, on February 2, 2004, the Court dismissed after trial PNM’s general defenses to Plaintiffs’ opacity claim; and

WHEREAS, on April 29, 2004, Plaintiffs served a second notice of intent to sue PNM regarding additional CAA violations at San Juan; and

WHEREAS, on May 26, 2004, PNM agreed to the entry of an Order that found 42,008

opacity limit violations at San Juan that would be addressed in the remedy phase of the case; and

WHEREAS, on September 12, 2003, the State of New Mexico, through the New Mexico Environment Department (“Department”), issued a draft administrative compliance order to PNM alleging that San Juan had violated on numerous occasions the limits for nitrogen oxides, sulfur dioxide, particulate matter, and opacity in its New Source Review and Title V permits; and

WHEREAS, on May 14, 2004, the Department issued a revised draft administrative compliance order to PNM alleging that San Juan had violated on numerous occasions the limits for nitrogen oxides, sulfur dioxide, particulate matter, and opacity in its New Source Review and Title V permits, the deviation reporting requirements in its Title V permit, and its obligation to implement good air pollution control practices; and

WHEREAS, contemporaneously with the lodging of this Consent Decree, the Department has moved to intervene in Plaintiffs’ action as a party-plaintiff and has filed a complaint pursuant to Section 304(a) of the CAA, 42 U.S.C. § 7604(a), alleging the same violations contained in the draft administrative compliance orders issued on September 12, 2003 and May 14, 2004; and

WHEREAS, Plaintiffs, the Department, and PNM have met on numerous occasions in an effort to resolve all of the issues and claims that are the subject of the complaints, draft compliance orders and second notice of intent to sue; and

WHEREAS, Plaintiffs, the Department, and PNM agree that the settlement of these disputes without further litigation and through this Consent Decree is in the public interest, and is a fair, reasonable, and appropriate means of resolving the claims in the complaints, draft compliance orders and second notice of intent to sue because it requires the installation and

operation of pollution control equipment for particulate matter, nitrogen oxides, sulfur dioxide, and mercury at the four (4) San Juan units, at an estimated expenditure of more than \$200 million. This relief is expected to correct all of the CAA violations alleged in the complaints, draft compliance orders and second notice of intent to sue, represents remedial relief sufficient to offset Plaintiffs' and the Department's claims for civil penalties, and reflects PNM's commitment to reduce substantially the emission of nitrogen oxides, sulfur dioxide, particulate matter and mercury from San Juan; and

WHEREAS, PNM is the operator and a co-owner of each unit at San Juan; and

WHEREAS, except as otherwise stipulated to, PNM denies the allegations and does not admit liability for any claims or assertions in the complaints, draft compliance orders and second notice of intent to sue; and

WHEREAS, Plaintiffs, the Department and PNM consent to the entry of this Consent Decree without further trial or appeal;

NOW THEREFORE, it is hereby AGREED, ORDERED AND DECREED as follows:

II. DEFINITIONS

1. Unless otherwise expressly provided herein, the terms used in this Consent Decree that are defined in the CAA, or regulations implementing the CAA, shall have the meanings set forth in the CAA and its implementing regulations.

2. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

“Act” or “CAA” means the Clean Air Act, 42 U.S.C.A. § 7401 et seq.

“Average emission rate” means the total amount of a pollutant emitted from an emission unit during a given time period, expressed in pounds per million Btu (“lb./MMBtu”), derived for

particulate matter in accordance with Method 5, 40 C.F.R. Part 60, and for SO₂ and NO_x in accordance with 40 C.F.R. Part 75. An “hourly average” emission rate means the average emission rate of pollutants discharged from the stack during a sixty (60) minute period, beginning on the hour. A “daily average” emission rate means the numerical average of the hourly average emission rates in an operating day, a “seven day average” emission rate means the numerical average of the hourly average emission rates for the operating days that occur within a period of seven (7) consecutive calendar days, and a “30 day average” emission rate means the numerical average of the hourly average emission rates for the operating days that occur within a period of thirty (30) consecutive calendar days. Unless explicitly specified elsewhere in this Decree, all average emission rates and average emission reduction efficiencies shall include all periods of startup, shutdown, malfunction, and emergency. All averages shall exclude inappropriate data (e.g., malfunction of the monitoring system) as specified elsewhere in this Decree and in the applicable EPA testing regulations at 40 C.F.R. Part 60, Appendix A, and Part 75.

“Block average” means an average emission rate for the operating days occurring over a specified period of consecutive calendar days. A new “block average” is generated for every specified period.

“Business day” means any day of the week except Saturday, Sunday and a federal or New Mexico holiday.

“Calendar day” means any twenty four (24) hour period between 12:00 midnight and the following midnight, Mountain Standard Time.

“CEMS” means continuous emissions monitoring system, which consists of the total equipment used to sample, analyze, and record on a continuous basis emissions-related

parameters other than Opacity.

“COMS” means continuous opacity monitoring system, which consists of the total equipment used to sample, analyze, and record Opacity on a continuous basis.

“Consent Decree” or “Decree” means this Consent Decree.

“Court” means the United States District Court for the District of New Mexico.

“Day” means a calendar day. In computing any period of time under this Decree, except in computing compliance with emission limitations, where the last day would fall on a Saturday, Sunday or federal or New Mexico holiday, the period shall run until the close of the next business day.

“Department” means the New Mexico Environment Department, and any successor departments or agencies.

“Emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of PNM, including acts of God, which situation requires immediate corrective action to restore normal operation of San Juan. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, or careless or improper operation.

“EPA” means the United States Environmental Protection Agency, and any successor departments or agencies.

“Excess opacity reading” means each six (6) minute period of time during which the opacity of emissions from a stack at a San Juan unit exceeds twenty (20) percent.

“Malfunction” means any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, process equipment, or of a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not

malfunctions.

“NSR Permit” means PNM’s NSR Permit 63-M2, issued January 22, 1997.

“NO_x” means total oxides of nitrogen, except nitrous oxide, which are expressed as nitrogen dioxide using EPA Reference Method 7.

“Opacity” means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

“Operating day” means a calendar day in which fuel is combusted in a unit for at least three (3) hours. If fuel is combusted for more than three (3) hours during a calendar day, the calculation of that day’s emissions for the unit shall be based upon the average emission rate of pollution during hours in which fuel was combusted in the unit, and shall not include any time in which fuel was not combusted.

“Operating Permit” means PNM’s Operating Permit P062, which became effective on August 7, 1998.

“Parties” means collectively the Plaintiffs, the Department and PNM.

“Party” means Plaintiffs, the Department or PNM, individually.

“PM” means any airborne, finely divided solid or liquid material, other than uncombined water, with an aerodynamic diameter smaller than 100 micrometers, and which is expressed as PM using EPA Reference Method 5.

“Plaintiffs” means collectively The Grand Canyon Trust and Sierra Club.

“PNM” means Public Service Company of New Mexico, a publicly owned corporation doing business in the State of New Mexico.

“Quarter” means a calendar quarter consisting of three (3) full months, beginning on the first day of either January, April, July, or October.

“Rolling average emission rate” means an average emission rate or average SO₂ percentage reduction that is generated each calendar day based on the average emission rate or average SO₂ percentage reduction for the operating days within a multiple-day period. A new average emission rate or average SO₂ percentage reduction is generated each calendar day.

“San Juan” means the San Juan Generating Station, comprised of four (4) fossil fuel-fired steam generating units (as that term is defined at 40 C.F.R. § 60.41(a)) and associated equipment, located west of Farmington, New Mexico.

“Shutdown” means the cessation of operation of a fossil fuel-fired steam generating unit at San Juan for any purpose or reason.

“SO₂” means sulfur dioxide.

“SO₂ percentage reduction” means the amount of SO₂ reduced by SO₂ removal equipment determined by (1) measuring the concentration of SO₂ in the flue gas upstream of the scrubber inlet (expressed as A), and (2) the contemporaneous concentration of SO₂ measured downstream of the scrubber outlet and any scrubber by-pass return (expressed as B), and performing the following calculation: $100 - 100(B \div A)$. An “hourly average” SO₂ percentage reduction means the numerical average of SO₂ percentage reduction values recorded in a sixty (60) minute period during which pollutants are discharged from the stack, beginning on the hour. A “daily average” SO₂ percentage reduction means the numerical average of the hourly average SO₂ percentage reduction values in an operating day. “Annual average” SO₂ percentage reduction means the numerical average of the hourly average SO₂ percentage reduction values for a period of 365 consecutive calendar days. All averages shall exclude inappropriate data (e.g., malfunction of the monitoring system) as specified elsewhere in this Decree and in the applicable EPA testing regulations at 40 C.F.R Part 60, Appendix A, and Part 75.

“Startup” means the setting in operation of a fossil fuel-fired steam generating unit at San Juan for any purpose or reason.

“State” means the State of New Mexico, including all of its departments, agencies, and instrumentalities.

“Unit 1”, “Unit 2”, “Unit 3”, and “Unit 4” mean each of the four (4) fossil fuel-fired steam generating units and associated equipment at San Juan.

III. JURISDICTION AND VENUE

3. This Court has jurisdiction over the Parties to and the subject matter of this action under Section 304 of the Act, 42 U.S.C. § 7604, the citizen suit provision, and under 28 U.S.C. §§ 1331, 1345, and 1355.

4. Venue is proper in this Judicial District under Sections 304(c) and 113(b) of the Act, 42 U.S.C. §§ 7604(c) and 7413(b), and under 28 U.S.C. §§ 1391 and 1395.

IV. APPLICABILITY

5. This Decree shall apply to and be binding upon Plaintiffs, the Department, and PNM, and their officers, agents, successors, and assigns. PNM shall provide a copy of this Decree to each contractor, subcontractor, laboratory, and any other entity retained to conduct, monitor or otherwise perform any of the work required by or necessary to comply with this Decree.

6. In any action to enforce this Decree, PNM shall not assert as a defense the failure of its officers, directors, employees, servants, agents, or contractors to take actions necessary to comply with this Decree, unless PNM establishes that such failure resulted from a *force majeure* event as defined in this Decree.

V. EMISSION CONTROLS AND LIMITATIONS

7. PNM shall at all times, including periods of startup, shutdown, and malfunction, maintain and operate Units 1, 2, 3, and 4 in a manner consistent with good air pollution control practices for minimizing emissions.

8. Prior to installing the pollution control equipment described below, in addition to any other applicable requirement, the emissions of PM, SO₂ and NO_x and opacity from San Juan shall be subject to Section XI (Stipulated Penalties).

9. PNM shall install the following pollution control equipment, and make any other capital and operational modifications necessary to achieve the following emission limitations and mercury operational requirements at San Juan by the deadlines set forth in Section VIII (Emission Limitation Compliance Deadlines):

(a) PM and Opacity

(i) PNM shall operate baghouses and demister technology on San Juan Units 1, 2, 3, and 4 to meet the following emission limitations.

(ii) The PM average emission rate for each of Units 1, 2, 3, and 4 shall not exceed 0.015 lb./MMBtu as measured by EPA Reference Method 5 stack tests conducted at least once each calendar quarter at times and conditions specified by the Department, and according to test protocols approved by the Department, but in all cases under conditions and in a manner no less stringent than described in EPA's 2004 Clean Air Act National Stack Testing Guidance. PNM shall submit all results and a complete description of the tests to Plaintiffs and the Department in the next quarterly report following PNM's receipt of the results.

(iii) The opacity limit for San Juan Units 1, 2, 3, and 4 shall be twenty (20) percent, averaged over any six (6) minute period except for one six (6) minute average per hour

of up to twenty-seven (27) percent opacity. This limit shall apply at all times when air pollutants are being discharged into the atmosphere, unless PNM demonstrates that any excess opacity reading: (a) was caused by a startup, shutdown, malfunction, or emergency, or (b) occurred when both the boiler and all fans that move flue gas in the unit were off. Opacity shall be measured in the stack or, if approved by EPA, after the outlet of the baghouse and corrected to stack exit.

(iv) Load changes, poor coal quality, air heater cleaning, sootblowing, and high ash hoppers shall not excuse any excess opacity reading.

(v) PNM shall report any exceedance of the opacity limit described above in the next quarterly report following the exceedance.

(vi) If PNM claims that an excess opacity reading was caused by a startup, shutdown, malfunction, or emergency, or occurred when both the boiler and all fans that move flue gas in the unit were off, it shall notify the Department (a) by facsimile no later than twenty-four (24) hours after the start of the next business day, and (b) in writing no later than ten (10) calendar days after the start of the first business day following the reading (or the first reading in the event of a series of excess readings). With respect to the written notification, PNM shall use the applicable excess emission form published by the Department. To the extent PNM claims a defense described in this subparagraph to an excess opacity reading, it shall disclose such claim in its next quarterly report following the excess opacity reading, attach the facsimile and excess emission form filed with the Department, and describe any relevant revisions and amendments to the information in the facsimile and excess emission form filed with the Department, including (1) the date and time of facsimile and written notification to the Department, (2) the cause of the excess opacity reading(s), (3) actions that PNM took to correct the causes of the excess opacity reading(s), (4) all actions that PNM will take to prevent the causes of the excess opacity

reading(s) from recurring. PNM's failure to materially comply with any requirement specified above shall waive any claim that an excess opacity reading was caused by a startup, shutdown, malfunction, or emergency, or occurred when both the boiler and all fans that move flue gas in the unit were off.

(vii) For purposes of this Consent Decree, if Plaintiffs or the Department disagree with any claim of defense described in this subparagraph regarding any excess opacity reading, they shall inform PNM in writing within 180 days of such disagreement. However, any disagreement shall not be subject to Section XII (Dispute Resolution) unless Plaintiffs or the Department expressly state that their disagreement represents a final determination regarding the excess opacity reading, or the Plaintiffs or the Department issue a demand for stipulated penalties regarding the excess opacity reading. Any final determination or demand for stipulated penalties shall be binding upon PNM within thirty (30) days of receipt unless PNM invokes Section XII (Dispute Resolution).

(viii) PNM shall determine compliance with the opacity limit above on a continuous basis using data from the current COMS or an EPA-approved COMS at an alternative location.

(ix) No later than sixty (60) days after the effective date of this Decree, PNM shall submit a report to Plaintiffs and the Department that identifies the technology and operational parameters that represent demonstrated state-of-the-art demister control for each unit, and that determines the extent to which the existing demister technology and operational parameters constitute demonstrated state-of-the-art demister control for each unit. The report shall be reviewed pursuant to Section IX (Approvals). Within ninety (90) days of approval by Plaintiffs and the Department, PNM shall install such technology to the extent it has not already

been installed and is in operation. PNM shall operate and maintain demonstrated state-of-the-art demister technology on San Juan Units 1, 2, 3, and 4, and implement operational parameters to maximize the reduction of acid mist, scrubber carry-over, and any other liquid particulate matter emitted from such units.

(b) NO_x

(i) PNM shall design, install, and operate demonstrated state-of-the-art NO_x combustion control technology on San Juan Units 1, 2, 3, and 4 to minimize the formation of NO_x from each unit. PNM shall contract with one or more expert(s) on the technologies to identify demonstrated state-of-the-art NO_x combustion control equipment and operational requirements for each unit. The expert(s) shall prepare a report describing the recommended control equipment and operational requirements for each unit, including an explanation of the reasons that such equipment and requirements constitute demonstrated state of-the-art NO_x combustion control technology. No later than 180 days after the effective date of this Decree, PNM shall submit the report to Plaintiffs and the Department. The report shall be reviewed pursuant to Section IX (Approvals).

(ii) Upon approval by Plaintiffs and the Department, PNM shall install and operate NO_x combustion control technology to meet the following NO_x emission limits.

(iii) The thirty (30) day rolling average emission rate for NO_x for each of San Juan Units 1, 2, 3, and 4 shall not exceed 0.30 lb./MMBtu. For purposes of calculating the thirty (30) day rolling average, NO_x emissions for the first three (3) hours of a cold startup after coal is fed to the boiler shall be capped at 0.30 lb./MMBtu. Cold startup is defined as a startup when the boiler is at ambient indoor temperature measured at the time fuel is first fed to the boiler. No later than sixty (60) days after the first twelve (12) months of operation of the new NO_x

combustion control technology installed at each unit, PNM shall submit a report to Plaintiffs and the Department (a) identifying the daily average NO_x emission rate for each unit for every operating day in the period and the thirty (30) day rolling average emission rate for every calendar day of the period, (b) describing the performance of the NO_x control technology at each unit, and (c) evaluating the extent to which the 0.30 lb./MMBtu limit can be lowered at each unit based on the performance of each unit during the first twelve (12) months of operation of the new NO_x combustion control technology. The report shall be reviewed pursuant to the procedure in Section IX (Approvals). Upon approval of Plaintiffs and the Department, the 0.30 lb./MMBtu limit shall be adjusted to a lower limit for the unit if the data gathered during the first twelve (12) months of operation indicate that a given unit is capable of meeting a lower limit, provided, however, that any final NO_x limit for a given unit shall add a ten (10) percent margin of safety to the most representative thirty (30) day average emission rate achieved during the first twelve (12) months of operation.

(iv) PNM shall report any exceedance of the NO_x limits described above in the next quarterly report following the exceedance.

(v) Compliance with NO_x emission limits imposed by this Decree shall be determined on a unit-specific basis using data from NO_x CEMS installed and operated in accordance with 40 C.F.R. Part 75 and any other applicable requirement.

(c) SO₂

(i) PNM shall take those measures necessary to reduce SO₂ emissions at San Juan to achieve and maintain the emission limits below.

(ii) The annual rolling average SO₂ percentage reduction for San Juan Units 1, 2, 3, and 4 shall not be less than ninety (90) percent for each unit.

(iii) The seven (7) day average emission rate of SO₂ at San Juan Units 1, 2, 3, and 4 shall not exceed 0.250 lb./MMBtu for each unit, calculated as a block average as measured by SO₂ CEMS located downstream of the scrubber outlet and any scrubber by-pass return. For purposes of calculating the block average, SO₂ emissions for the first three (3) hours of a cold startup after coal is fed to the boiler shall be capped at 0.250 lb./MMBtu. Cold startup is defined as a startup when the boiler is at ambient indoor temperature measured at the time fuel is first fed to the boiler.

(iv) PNM shall report any exceedance of the limits described above in the next quarterly report following the exceedance.

(v) SO₂ CEMS shall be used to demonstrate compliance with these requirements and shall be installed and operated in accordance with the provisions of this Decree, 40 C.F.R. Part 75 and any other applicable requirement.

(d) Mercury

(i) PNM shall design activated carbon injection technology (or comparable mercury reduction technology) for San Juan Units 3 and 4 for the purpose of maximizing mercury reduction, within the physical and operational constraints of each unit, including the pollution control equipment to be operated at each unit after the deadlines in Section VIII (“physical and operational constraints”). No later than one year after the effective date of this Decree, PNM shall submit a report to Plaintiffs and the Department describing such design and the relevant physical and operational constraints of each unit. The report shall be reviewed pursuant to Section IX (Approvals).

(ii) Within the deadlines established under Section VII (Construction Compliance Deadlines), PNM shall install and operate the mercury control technology, install

mercury CEMs, and establish operating procedures to maximize mercury reduction for Units 3 and 4 during a test period of one and one half (1½) years from the commencement of operation of the mercury reduction technology on the first unit. No later than ninety (90) days after such test period, PNM shall submit a report to Plaintiffs and the Department presenting the results of PNM's efforts to reduce mercury emissions and identifying and discussing the bases for operational parameters to achieve maximum mercury reduction, taking into account the physical and operational constraints of each unit. The report shall be reviewed pursuant to Section IX (Approvals).

(iii) Upon approval by Plaintiffs and the Department, the operational parameters for Units 3 and 4 shall become enforceable under this Decree. PNM shall report compliance with the operational parameters in the quarterly reports required by this Decree.

(iv) PNM shall install and operate similar mercury reduction technology and shall be subject to similar, enforceable operational parameters at Units 1 and 2, to achieve maximum mercury reduction, taking into account the physical and operational constraints of each unit. PNM shall report compliance with the operational parameters in the quarterly reports required by this Decree.

VI. EMISSIONS MONITORING

10. PNM shall maintain, calibrate, and operate COMS to measure the opacity of emissions at San Juan in compliance with the requirements of its Operating Permit and 40 C.F.R. Part 60.

11. To the extent PNM intends to change the current location of the COMS in the stack of a unit to a location after the baghouse and before the SO₂ scrubber, PNM shall request approval from EPA for any such alternative COMS location pursuant to 40 C.F.R. Parts 60 and

75 and any other applicable requirement. PNM shall provide copies of any requests for approval and subsequent related correspondence and documents to Plaintiffs and the Department no later than seven (7) days after their submittal or receipt. Until EPA approves an alternative location, PNM shall use the current COMS to determine compliance with the opacity limit.

12. After the effective date of this Decree, PNM shall maintain, calibrate, and operate CEMS at San Juan Units 1, 2, 3, and 4 to measure accurately and continuously the emissions of SO₂, NO_x, and total exhaust from each unit in full compliance with the requirements of 40 C.F.R. Parts 60 and 75, including requirements for heat input rate measurements. Nothing herein shall preclude PNM from installing, certifying, and operating integrated CEMS equipment to measure SO₂, NO_x, opacity, or any combination thereof.

13. PNM shall ensure that any modification to a COMS or CEMS necessitated by PNM's actions under or in furtherance of this Decree shall be completed prior to the operation of the SO₂, NO_x, and PM controls required by this Decree.

14. PNM shall recertify all COMS and CEMS at San Juan as required by 40 C.F.R. Parts 60 and 75.

15. No later than seven (7) operating days after the first passage of flue gas through the SO₂ controls for each unit, PNM shall calculate for all hours during which pollutants are discharged from the stack in each operating day: (a) the SO₂ hourly average percentage reduction, and (b) the SO₂ hourly average emission rate.

16. No later than thirty (30) days after the first startup following construction of NO_x controls for each unit, PNM shall begin to calculate the hourly average NO_x emission rate.

17. For any hour that valid, quality-assured CEM data for a unit is unavailable, PNM shall calculate the SO₂ and NO_x emissions for the unit in accordance with the missing data

substitution procedures in 40 C.F.R. Part 75.

18. Except for COMS or CEMS breakdowns, repairs, calibration checks, and zero and span adjustments as provided in 40 C.F.R. § 60.13(e), PNM shall be bound by the data from its COMS and NO_x and SO₂ CEMS, and shall not challenge the accuracy or credibility of its COMS and NO_x and SO₂ CEMS in any action under this Decree.

VII. CONSTRUCTION COMPLIANCE DEADLINES

19. PNM shall design, contract, construct, and complete all PM, SO₂, NO_x, and mercury controls required by this Decree according to the following schedule, subject only to *force majeure* under Section XIII:

	<u>Activity</u>	<u>Deadline</u>
(a)	<u>San Juan Unit 4.</u>	
(i)	Commence physical, on-site construction of PM, SO ₂ , NO _x , and mercury controls	10/31/06
(ii)	Complete construction and initiate startup of PM, SO ₂ , NO _x , and mercury controls	10/31/07
(iii)	Provide opportunity for on-site inspection by Plaintiffs and Department	10/31/07 - 12/31/07
(b)	<u>San Juan Unit 3.</u>	
(i)	Commence physical, on-site construction of PM, SO ₂ , NO _x and mercury controls	4/30/07
(ii)	Completion of construction and initiate startup of PM, SO ₂ , NO _x , and mercury controls	4/30/08
(iii)	Provide opportunity for on-site inspection by Plaintiffs and Department	4/30/08 - 6/30/08

- (c) San Juan Unit 1.
- | | | |
|-------|--|---------------------|
| (i) | Commence physical, on-site construction of PM, SO ₂ , and NO _x controls | 10/31/07 |
| (ii) | Complete construction and initiate startup of PM, SO ₂ , and NO _x controls | 10/31/08 |
| (iii) | Provide opportunity for on-site inspection by Plaintiffs and Department | 10/31/08 - 12/31/08 |
| (iv) | Commence construction of mercury controls | 9/30/09 |
| (v) | Complete construction and initiate mercury controls | 12/31/09 |
- (d) San Juan Unit 2.
- | | | |
|-------|--|--------------------|
| (i) | Commence physical, on-site construction of PM, SO ₂ , and NO _x controls | 3/31/08 |
| (ii) | Complete construction and initiate startup of PM, SO ₂ , and NO _x controls | 3/31/09 |
| (iii) | Provide opportunity for on-site inspection by Plaintiffs and Department | 3/31/09 - 5/31/09 |
| (iv) | Commence construction of mercury controls | 9/30/09 |
| (v) | Complete construction and initiate mercury controls | 12/31/09 |
| (vi) | Provide opportunity for on-site inspection by Plaintiffs and Department. | 12/31/09 - 3/31/10 |

VIII. EMISSION LIMITATION COMPLIANCE DEADLINES

20. PNM's obligation to comply with the Opacity, PM, SO₂, and NO_x emission limitations, and mercury emission reduction operational requirements described in Section V (Emission Controls and Limitations) shall commence on the dates listed below, subject only to *force majeure* under Section XIII (Force Majeure).

(a) Opacity, PM, NO_x and SO₂ Emission Limits:

(i) For Unit 4, no later than ninety (90) days after completion of construction of PM, NO_x, and SO₂ controls, or by December 31, 2007, whichever date is earlier.

(ii) For Unit 3, no later than ninety (90) days after completion of construction of PM, NO_x, and SO₂ controls, or by June 30, 2008, whichever date is earlier.

(iii) For Unit 1, no later than ninety (90) days after completion of construction of PM, NO_x, and SO₂ controls, or by December 31, 2008, whichever date is earlier.

(iv) For Unit 2, no later than ninety (90) days after completion of construction of PM, NO_x, and SO₂ controls, or by May 31, 2009, whichever date is earlier.

(b) Mercury Reduction Operational Requirements

(i) For Units 3 and 4, no later than sixty (60) days after approval of operational requirements for each unit, or by June 30, 2009, whichever date is earlier.

(ii) For Units 1 and 2, no later than (45) days after completion of construction of mercury controls, or by January 30, 2010, whichever date is earlier.

IX. APPROVALS

21. After receiving any report for approval under this Decree, Plaintiffs and the Department shall have twenty (20) business days from receipt of the report to provide written notice of approval or disapproval, in whole or in part. By notice from Plaintiffs or the Department to PNM, this deadline may be extended by no more than twenty (20) additional business days. If the deadline is so extended then any compliance deadline related to such approval shall be extended for the same number of days. If Plaintiffs and the Department do not provide timely written notice, the report shall be deemed to be approved. If the Plaintiffs and/or the Department disapprove a report, in whole or in part, the disapproving party shall state the

reason(s) and justification(s) for its disapproval. No later than twenty (20) business days after receipt of the written notice of disapproval, PNM shall either (a) accept the disapproving party's position, (b) resolve the issue with the disapproving party and obtain agreement from the remaining party, or (c) initiate the procedure in Section XII (Dispute Resolution). The resolution of a disapproval by one of the three methods shall constitute approval for the purpose of this Decree. Notwithstanding the above procedure, the Parties shall make their best effort to resolve issues regarding the approval of reports through informal consultation and without resort to the procedure in Section XII (Dispute Resolution). Plaintiffs reserve their right to seek from PNM their reasonable costs and fees in evaluating and otherwise addressing PNM's reports under this Section IX (Approvals). PNM reserves its right to oppose any request for costs and fees by Plaintiffs.

X. REPORTING

22. No later than forty-five (45) days after the end of each quarter, beginning with the first quarter of 2005 and continuing until this Decree is terminated under Section XXIV, PNM shall provide a quarterly report to the Plaintiffs and the Department containing the information for the immediately preceding quarter that PNM is required to report on a quarterly basis under this Decree.

23. Each quarterly report shall begin with a cover letter, signed by a representative of PNM, that summarizes the information contained in the report.

24. Each quarterly report shall include, for each San Juan unit:

- (a) a description of construction deadlines achieved, projects completed, progress made toward meeting future deadlines, and any actual, expected or reasonably foreseeable delays;

- (b) identification of all excess opacity readings and any exceedances of the current SO₂ and NO_x emission limits described in Section XI (Stipulated Penalties).
- (c) identification of each failure to meet a standard or emission limitation or operational requirement described in Section V (Emission Controls and Limitations) or a deadline in Section VIII (Emission Limitation Compliance Deadlines);
- (d) the quarterly report described in 40 C.F.R. § 60.7;
- (e) after installation of the PM controls, the required quarterly reports for PM and opacity;
- (f) after installation of the SO₂ controls, PNM shall report on a quarterly basis all seven (7) day block averages that exceeded the applicable emission limitation. PNM shall also report each day for which the annual rolling SO₂ percentage reduction average emission rate at any unit exceeded the applicable reduction requirement during the prior quarter. In addition, PNM shall report on a quarterly basis a list of the hours excluded from the determination of compliance with the applicable emission limitation.
- (g) after installation of the NO_x controls, the required quarterly reports for NO_x emissions;
- (h) after installation of the mercury control equipment, the required quarterly reports for mercury (Hg) emissions; and
- (i) a description of any stipulated penalties due or paid to the Department, or into escrow, including the reason for such payment(s) and the total amount held in escrow at the end of each quarter.

25. If Plaintiffs or the Department request clarification of any quarterly report, including a request for information not provided in such report, PNM promptly shall provide such clarification or information. If the information is requested in electronic form PNM shall provide it to the extent available. PNM shall retain all documents relating to compliance with this Decree, including contracts, plans, and specifications, in accordance with Section XVIII (Record Preservation). Upon request of the Department, PNM shall supply a copy of such documents, subject to a claim of confidential business information under the New Mexico Air Quality Control Act. Upon request of the Plaintiffs, PNM shall provide a copy of such documents as long as Plaintiffs execute a reasonable confidentiality agreement that strictly limits release of the confidential business information to Plaintiffs and their counsel and experts. If Plaintiffs do not agree with PNM's claim of confidential business information Plaintiffs may invoke the dispute resolution procedure in Section XII (Dispute Resolution).

26. PNM's obligation to provide quarterly reports is in addition to any other notification or report required by this Decree or by PNM's operating permit, unless such notification or report is required on a quarterly basis. Nothing in this Decree shall be interpreted to excuse or diminish PNM's obligation to provide any other notice report, or other document to the public or local, state or federal officials.

XI. STIPULATED PENALTIES

27. PNM shall pay stipulated penalties for each failure by PNM to comply with a term or condition of this Decree, unless excused by Section XIII (Force Majeure) or Section XII (Dispute Resolution). All stipulated penalties shall be calculated on a per unit, per day basis, unless expressly stated otherwise. Stipulated penalties shall not be assessed for any reason other than those set forth in this Section.

28. For each failure to comply with a construction commencement deadline:

(a) 1st through 30th day after deadline - \$750

(b) 31st through 60th day after deadline - \$5,000

(c) Beyond 60th day - \$10,000

29. For each failure to comply with a construction completion deadline:

(a) 1st through 30th day after deadline - \$3,000

(b) 31st through 60th day after deadline - \$10,000

(c) Beyond 60th day - \$20,000.

30. PNM shall maintain a record of all stipulated penalties that accrue pursuant to paragraph 28 for each unit. If PNM meets the construction completion deadline for a unit, PNM shall not be obligated to pay any accrued stipulated penalties under this paragraph for that unit. If PNM does not meet the construction completion deadline for a unit, PNM shall pay all accrued penalties for that unit, including interest pursuant to 28 U.S.C. § 1961(a).

31. For each failure to comply with a PM emission limit, \$2,500, with the period of noncompliance commencing with the failure of a PM stack test and ending when a PM stack test demonstrates compliance, except for periods when the unit is not in operation.

32. For each excess opacity reading from San Juan Units 1, 3, and 4, excluding only excess readings caused by a startup or shutdown, or that occurred when both the boiler and all fans that move flue gas in the unit were off, stipulated penalties shall be determined on a quarterly basis for the period of time beginning with the quarter in which this Decree is entered until the first quarter in which flue gas first passes through the baghouse for that unit:

(a) Unit 1:

Stipulated penalties will be due for each excess opacity reading above the following

quarterly threshold amounts: 150 excess opacity readings/quarter for 2005; 125 excess opacity readings/quarter for 2006; 100 excess opacity readings/quarter for 2007; and 75 excess opacity readings/quarter for 2008 and thereafter.

(b) Units 3 and 4:

Stipulated penalties will be due for each excess opacity reading above the following quarterly threshold amounts, by unit: 14 excess opacity readings/quarter for 2005; 12 excess opacity readings/quarter for 2006; 10 excess opacity readings/quarter for 2007; and 8 excess opacity readings/quarter for 2008 and thereafter.

(c) The stipulated penalty for any quarterly excess opacity readings at San Juan Units 1, 3 or 4 shall equal \$1,000 per excess opacity reading above the values specified above, except that the stipulated penalty for the first ten (10) percent of the excess opacity readings above the quarterly thresholds for Unit 1 only shall be \$750. Payment of all stipulated penalties pursuant to this paragraph shall be made, without written demand therefor into a commercially available escrow account, within thirty (30) days of the end of the applicable quarter.

33. For every calendar year, beginning on January 1, 2005 for each unit, if the average number of excess opacity readings per quarter for four (4) quarters is less than the applicable quarterly threshold as set forth above, all stipulated penalties and interest that have accrued in the escrow account during that year shall be refunded to PNM. However, if the average number of excess opacity readings per quarter in that calendar year is greater than the applicable quarterly threshold as set forth above, all stipulated penalties and interest that have accrued in the escrow account during that year shall be paid to the Department. In any calendar year in which there are less than 365 days before flue gas first passes through the baghouse of any unit, the number of excess opacity readings for the balance of the 365 days shall be determined by the following formula: $N = (A \div 90)D$; where:

N = Number of excess opacity readings added to complete the 365 day period;

A = Number of excess opacity readings from the most recent preceding complete quarter for the applicable unit; and

D = Number of days needed to complete 365 day period.

34. For each failure to comply with an opacity standard after the applicable final compliance date until termination of this Decree, the stipulated penalty shall be \$2,000 per excess reading, excluding excess emissions caused by startup, shutdown, malfunction, and emergency.

35. For each failure to comply with a current SO₂ emission limit at San Juan between the effective date of this Decree and the date specified in Paragraph 20(a), stipulated penalties shall be \$1,500 per violation, excluding excess emissions excused by the Department pursuant to Section 20.2.7 NMAC. Such SO₂ emission limits are:

- (a) For all four (4) units combined, 13,000 pounds per hour on a rolling 3-hour average,
- (b) For all four (4) units combined, 0.55 lb./MMBtu on a rolling 30-day average, and
- (c) For all four (4) units combined, 0.46 lb./MMBtu on a rolling hourly annual average.
- (d) For Units 1, 3 and 4, by unit, 1.2 lb./MMBtu on a rolling 3-hour average.
- (e) For Unit 2, seventy-two (72) percent SO₂ reduction on a 30-day rolling average.

36. For each failure to comply with any SO₂ emission limit in Section V (Emission Controls and Limitations) after the date specified in Section VIII (Emission Limitation Compliance Deadlines), \$5,000 per violation.

37. For each failure to comply with a current NO_x emission limit at San Juan between the effective date of this Decree and the date specified in Section VIII (Emission Limitation Compliance Deadlines), excluding only excess readings caused by a startup or shutdown, stipulated penalties shall be determined on a quarterly basis as provided in paragraph 38. The

current NO_x emission limits are:

- (a) For all four (4) units combined, 9,000 pounds per hour on a rolling twenty-four (24) hour period.
- (b) For Units 1, 3 and 4, by unit, 0.45 lb./MMBtu on a rolling three (3) hour average.
- (c) For Unit 2, 0.7 lb./MMBtu on a rolling three (3) hour average.

38. The quarterly excess NO_x emission thresholds, by unit, are as follows:

- (a) Unit 1:

Stipulated penalties will be due for each hour of excess NO_x emissions above the following quarterly threshold amounts: 20 excess NO_x emissions/quarter for 2005; 15 excess NO_x emissions/quarter for 2006 and thereafter.

- (b) Units 2, 3 and 4:

Stipulated penalties will be due for each hour of excess NO_x emissions above the following quarterly threshold amounts: 2 excess NO_x emission/quarter for each unit for 2005 and thereafter.

- (c) The stipulated penalty for any quarterly excess NO_x emission at San Juan shall equal \$5,000 per each hour of excess NO_x emission above the values specified above. Payment of all stipulated penalties pursuant to this paragraph shall be made, without written demand therefor into a commercially available escrow account, within thirty (30) days of the end of the applicable quarter.

39. For every calendar year, beginning on January 1, 2005 for each unit, if the average number of hourly excess NO_x emissions per quarter for four (4) quarters is less than the applicable quarterly threshold as set forth above, all stipulated penalties and interest that have accrued in the escrow account during that year shall be refunded to PNM. However, if the average number of hourly excess NO_x emissions per quarter in that calendar year is greater than the applicable quarterly threshold as set forth above, all stipulated penalties and interest that have accrued in the escrow account during that year shall be paid to the Department. In any calendar year in which there are less than 365 days before the NO_x emission limit deadline in Section VIII

(Emission Limitation Compliance Deadlines) applicable to any unit, the number of excess hourly NO_x emissions for the balance of the 365 days shall be determined by the following formula:

$N = (A \div 90)D$; where:

N = Number of excess hourly NO_x emissions added to complete the 365 day period;

A = Number of excess hourly NO_x emissions from the most recent preceding complete quarter for the applicable unit; and

D = Number of days needed to complete 365 day period.

40. For each failure to comply with the NO_x emission limit after the date specified in Section VIII (Emission Limitation Compliance Deadlines), \$5,000 per violation.

41. For each failure to comply with a mercury reduction operational requirement, \$5,000 per violation.

42. For the failure to comply with any other material requirement in the Decree, \$1,000 per violation.

43. Plaintiffs and the Department will consult regarding demands for stipulated penalties. Plaintiffs or the Department may demand stipulated penalties individually or jointly, and the fact that one party does not make a demand for stipulated penalties shall not be relevant to the merits of any other demand. Plaintiffs and the Department shall provide to the other a copy of any written demand for stipulated penalties at the same time that the demand is served on PNM.

44. No later than thirty (30) days after receipt of a written demand for stipulated penalties, PNM shall pay the stipulated penalties to the Department. Payment shall be by check, made payable to the State of New Mexico, and delivered to:

Office of General Counsel
New Mexico Environment Department
Post Office Box 26110
Santa Fe, New Mexico 87502

The check shall be accompanied by a transmittal letter referencing this Decree and attaching a copy of the written demand. PNM shall send a copy of the check and transmittal letter to the legal representatives for the Plaintiffs.

45. If PNM disputes the written demand for stipulated penalties, no later than thirty (30) days after receipt, PNM shall pay the stipulated penalties into a commercially available interest-bearing escrow account (interest computed consistent with 28 U.S.C. § 1961(a)) and invoke the procedures in Section XII (Dispute Resolution).

46. PNM's liability for stipulated penalties shall not depend on the date that Plaintiffs or the Department send or that PNM receives the written demand. Stipulated penalties shall apply during any period of dispute resolution; provided, however, that PNM may request that the Court reduce or eliminate stipulated penalties that accrue during the dispute resolution period if the Court deems that PNM pursued the dispute in good faith and not for the purpose of delay, without regard to whether PNM prevails in the dispute.

47. Plaintiffs and the Department reserve all rights to pursue any other remedies for violations of this Decree to which they are entitled, including injunctive relief.

XII. DISPUTE RESOLUTION

48. Any dispute identified in this Decree to be resolved by dispute resolution shall be subject to the procedures in this Section. The dispute resolution procedure of this Section XII (Dispute Resolution) shall be the exclusive mechanism to resolve such disputes. All other disputes regarding this Decree shall be resolved only in the context of an action by Plaintiffs or

the Department to enforce this Decree.

49. The dispute resolution procedure shall be invoked upon the giving of written notice by one of the parties to all others advising of a dispute and stating the reasons therefor. The party receiving such notice shall acknowledge receipt of the notice and the Parties shall expeditiously schedule a meeting to begin informal negotiations not later than fourteen (14) days from the receipt of such notice. Such period of informal negotiations shall not extend beyond thirty (30) calendar days from the date of the first meeting of the parties, unless the parties agree to extend this period.

50. If the parties are unable to resolve the dispute through the informal process described above, the disputing party waives its right to further dispute the issue unless it files a petition with the Court describing the dispute and serves it on the other parties. The other party or parties to the dispute shall have thirty (30) days after receipt of the petition to file and serve a written response. In judicial proceedings under this Section, the petitioning party shall carry the burdens of proof and persuasion. This Court shall have exclusive jurisdiction over any disputes under this Section XII (Dispute Resolution).

51. The invocation of the dispute resolution procedure under this Section shall not extend, postpone, or affect any obligation of any Party under this Decree not directly in dispute, unless the Parties or the Court agree otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue, but payment shall be stayed pending resolution of the dispute.

52. Plaintiffs reserve the right to seek from PNM their reasonable costs, including attorney and expert witness fees, expended in any dispute resolution process. PNM reserves its right to object to any such request by Plaintiffs.

XIII. FORCE MAJEURE

53. For the purpose of this Decree, “*force majeure*” is defined as any event arising from causes beyond the control of PNM or any entity controlled by PNM, or its agents, contractors, or employees, that delays, prevents, or can reasonably be anticipated to delay or prevent compliance with this Decree and that could not be overcome with due diligence.

54. PNM’s unanticipated or increased costs or changed financial circumstances shall not constitute *force majeure*. The absence of an approval under this Decree, or the Department’s failure to issue a permit if one is legally required before implementing the obligation at issue, or the stay of a permit if issued, shall not constitute *force majeure*, unless PNM demonstrates that (a) it submitted a timely and complete application or other request for approval, (b) it complied with all requirements for such application or other request for approval, and (c) it diligently and timely responded to all requests for additional information.

55. If any event occurs which causes or may cause a delay by PNM in meeting any deadline of this Decree, whether or not attributable to *force majeure*, PNM shall give written notice to Plaintiffs and the Department no later than ten (10) business days after the date on which PNM first knew or reasonably should have known that the event might cause a delay. PNM shall be deemed to have notice of any event that a contractor or subcontractor retained to implement this Decree had or reasonably should have had, unless through the affirmative misrepresentation of such contractor or subcontractor PNM was not provided such notice. No later than fifteen (15) days after service of the written notice, PNM shall submit a written report to Plaintiffs and the Department providing (a) the reasons for the delay, (b) the anticipated length of the delay, (c) a description of the obligation that has been or would be delayed, (d) a description of all actions taken and to be taken to prevent or minimize the delay, (e) a timetable for those

actions, (f) a schedule for complying with any deadline in this Decree which has been or would be affected by the event, and (g) the rationale and supporting documentation for a claim, if any, that the delay was or would be attributable to *force majeure*.

56. If Plaintiffs and the Department agree that the delay has been or would be caused by *force majeure*, the Parties may stipulate to an extension of the deadline for the length of time necessary to accommodate the *force majeure*. In establishing a new deadline, Plaintiffs and the Department shall take into consideration PNM's evidence regarding weather, outage schedules, and remobilization requirements. If the Parties cannot agree to the length of the extension, PNM may invoke the procedure in Section XII (Dispute Resolution).

57. If Plaintiffs and/or the Department do not agree that the delay or anticipated delay has been or would be caused by *force majeure*, no later than twenty (20) days after receiving PNM's written report, Plaintiffs and/or the Department shall notify PNM in writing of this decision. The decision shall be final and binding on PNM unless PNM invokes the procedure in Section XII (Dispute Resolution).

58. PNM shall have the burden of proving that any delay or anticipated delay has been or would be caused by *force majeure* (including proving that PNM gave timely notice), and of proving the duration and extent of any delay(s).

59. PNM's material failure to comply with the notification and reporting requirements of this Section XIII (Force Majeure) shall constitute a waiver of any claim of *force majeure* for the delay or anticipated delay at issue.

60. The extension of one deadline based on a specific event shall not constitute an extension of any other deadline unless agreed by the Parties or directed by this Court.

61. If PNM fails to comply with a deadline in this Decree due to *force majeure*, PNM shall be excused only from complying with that deadline and from paying stipulated penalties for failing to comply with that deadline, and only for that period of time excused by *force majeure*.

XIV. MODIFICATION

62. Any material modification of this Decree shall be in writing, signed by the Parties, and approved by this Court. Non-material modifications of this Decree shall be made upon written agreement of the Parties and shall be filed with the Court.

XV. NOTICE TO PARTIES

63. Whenever this Decree requires a Party to provide notice or submit a document to another Party, the notice or document shall be sent to the following persons in electronic (.pdf) format unless the size or other characteristic of the notice or document require the submission of a hard copy.

For Plaintiffs

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For the Department

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HSmith1@pnm.com

64. A Party may change the name, title, address, telephone number, fax number, or email address of a contact person identified above by providing written notice to the other Parties. Such change shall not constitute a modification for the purpose of Section XIV (Modification).

XVI. ENTRY AND INSPECTION

65. Nothing in this Decree shall be construed to limit or impair the Department's authority under the applicable laws and regulations to enter and inspect San Juan.

XVII. AVAILABILITY OF INFORMATION

66. Nothing in this Decree shall be construed to limit or impair the Department's authority under the applicable laws and regulations to require PNM to provide information regarding San Juan.

XVIII. RECORD PRESERVATION

67. For at least ten (10) years after termination of this Decree, PNM shall maintain all records, documents, data, and other information related to this Decree. Nothing in this Decree shall be construed as a waiver of any attorney client, attorney work product, or other privilege that PNM might otherwise possess.

XIX. COMPLIANCE WITH APPLICABLE LAWS

68. PNM shall undertake the obligations required by this Decree in accordance with applicable federal, state, and local laws and regulations.

69. This Decree is not a permit. The emission limits and related requirements contained in this Decree, however, shall be incorporated into permits consistent with Section XXIII (Integration with Permits). This Decree does not relieve PNM of its responsibility to comply with all federal, state, and local laws and regulations and orders of this Court.

70. Notwithstanding the foregoing, if any current or future federal, state, or local law or regulation conflicts with, or have the effect of relaxing, any requirement in this Decree, the more stringent requirement shall apply.

XX. EFFECT OF SETTLEMENT

71. This Decree constitutes a complete and final release of all civil claims for violations alleged in the complaints, draft compliance orders, and second notice of intent to sue through the effective date of this Decree.

72. Nothing in this Decree shall be construed to create any rights in or grant any cause of action to any person not a Party to this Decree. The preceding sentence shall not be construed to waive or nullify any rights that a person not a signatory to this Decree may have under applicable law. Plaintiffs and the Department expressly reserve all rights, defenses, claims, demands, and causes of action that they might have against PNM with respect to any matter, transaction, or occurrence relating to San Juan that is not addressed in this Decree. PNM expressly reserves all rights and defenses which it may have to any claim, demand, or cause of action relating to San Juan that is not addressed in this Decree. The Parties expressly reserve all rights, defenses, claims, demands, and causes of action which each Party may have against any person not a Party to this Decree with respect to any matter, transaction, or occurrence relating to San Juan. Nothing in this Decree shall be construed as a waiver of any privilege by a Party.

73. As long as PNM remains in compliance with the requirements in this Decree, Plaintiffs and the Department covenant not to sue PNM, its officers, employees, agents, successors, or assigns for matters alleged in the complaints, draft compliance orders, and second notice of intent to sue. Nothing herein shall prevent Plaintiffs or the Department from seeking any legal or equitable remedy to enforce the requirements of this Decree. This covenant not to sue does not pertain to any matters not alleged in the complaints, draft compliance orders, or second notice of intent to sue. Plaintiffs and the Department expressly reserve all rights, defenses, claims, demands, and causes of action which they may have against PNM with respect

to any matter, transaction, or occurrence that was not alleged in the complaints, draft compliance orders, or second notice of intent to sue. PNM represents and warrants that it has not notified Plaintiffs or the Department of any claims or alleged violations that are not included in the matters alleged in the complaint, draft compliance orders, or second notice of intent to sue at San Juan, and Plaintiffs and the Department represent and warrant that they are not presently aware of any claims or alleged violations at San Juan that are not included in the matters alleged in the complaint, draft compliance orders, or second notice of intent to sue.

74. Nothing herein shall prevent the Department from taking appropriate action to address conditions at San Juan that constitute an emergency situation or that present an immediate threat to public health or the environment.

75. This covenant not to sue shall survive the termination of this Decree as an agreement between PNM, Plaintiffs and the Department. This Decree shall not be used to establish the liability of PNM in any action, except to enforce the provisions of this Decree.

76. Plaintiffs Grand Canyon Trust and Sierra Club, and the Department, but not the Attorney General acting to represent the interests of residential and small business customers, agree not to contest, appeal or otherwise challenge a request by any owner of San Juan to recover the costs to install and operate the pollution control equipment described in this Decree before the New Mexico Public Regulation Commission (“NMPRC”) or any other rate-making regulatory agency. PNM’s obligations in this Decree shall not be affected by whether any costs associated with the pollution control equipment are deemed recoverable by the NMPRC or any other rate-making regulatory agency.

XXI. RETENTION OF JURISDICTION

77. The Court shall retain jurisdiction of this matter for the purpose of implementing

and enforcing the terms and conditions of the Decree and adjudicating disputes under Section XII (Dispute Resolution) until termination of the Decree.

XXII. ENFORCEMENT

78. This Decree is an enforceable document. If PNM violates any requirement of this Decree, Plaintiffs and/or the Department may request any legal or equitable remedy from this Court to achieve full compliance with such requirement. PNM reserves all rights and defenses to an enforcement action by Plaintiffs or the Department not expressly precluded by this Decree, and nothing in this Decree shall constitute a waiver of such rights or defenses.

XXIII. INTEGRATION WITH PERMITS

79. All requirements set forth in Section V (Emission Controls and Limitations) and Section VI (Emissions Monitoring), including all applicable definitions in Section II (Definitions), shall be incorporated as applicable requirements into San Juan's Operating Permit. For incorporation of these applicable requirements into PNM's operating permit, the requirements of this Decree shall be modified such that the role of Plaintiffs and the Department is assumed by the Department.

80. No later than one hundred and eighty (180) days after the effective date of this Decree, PNM shall submit an application to revise its NSR permit to authorize the construction of pollution control equipment required by Section V (Emission Controls and Limitations) of this Decree, if legally required. PNM shall consult with the Department to ensure that the permit application is administratively and technically complete. Plaintiffs may only challenge a provision in such permit to the extent it is not consistent with, or is not addressed by, this Decree.

81. PNM shall incorporate all applicable requirements in the Sections described

above at such time as it is required to renew its Operating Permit for San Juan; provided, however, that PNM may seek to modify its Operating Permit after the first renewal to incorporate any NO_x limit or mercury operational requirements to the extent they became applicable after such renewal. The Department shall include in the revised operating permit those emission limits and other requirements in the current operating and NSR permits; provided, however, the Department shall not relax any limit or requirement of this Decree. PNM shall consult with the Department to ensure that the permit application is administratively and technically complete. Plaintiffs may only challenge a provision in such permit to the extent it is not consistent with, or is not addressed by, this Decree.

82. PNM shall provide a copy of each permit application to Plaintiffs at the same time it is filed with the Department.

83. After termination of this Decree, PNM shall not, in any subsequent application for a modified or renewed Title V permit, seek to revise any applicable requirement in the Sections described above that is to be incorporated into a Title V permit to the extent any such revision would render such requirement less stringent. This agreement shall survive as an enforceable obligation between PNM, and Plaintiffs and the Department.

XXIV. TERMINATION OF CONSENT DECREE

84. This Decree shall remain an enforceable order of the Court until Plaintiffs and the Department agree, or the Court determines in response to a petition by a Party, that (a) all requirements of the Decree have been satisfied, (b) PNM has installed all controls and has been in material compliance with all emission limitations for twelve (12) consecutive months (except for the mercury operational requirements for Units 1 and 2 for which six (6) months compliance will be sufficient), (c) all applicable requirements of the Decree have been incorporated into the

Operating Permit for San Juan, and (d) PNM has paid any stipulated penalties due under the Decree. Termination of this Decree shall not affect any matter expressly set forth in this Decree that is to survive as an agreement among or between Plaintiffs, the Department, and PNM.

XXV. COSTS

85. PNM agrees that, pursuant to Section 304 of the Act, 42 U.S.C. § 7604(d), Plaintiffs are entitled to recover their reasonable costs of litigation in this action, including attorney and expert witness fees. The issue of the amount of such costs is reserved. If PNM and Plaintiffs are unable to reach an agreement regarding the amount of such costs, Plaintiffs may petition the Court for a determination of such amount. Furthermore, Plaintiffs expressly reserve their right to petition the Court for recovery of additional costs and fees incurred after they sign this Decree, and PNM reserves its right to oppose any such petition.

XXVI. SEVERABILITY

86. If any provision or authority of this Decree is held by a court of competent jurisdiction to be invalid, if that provision or authority is severable from the remainder of the Decree, the remainder of the Decree shall remain in force and shall not be affected by the court's order and ruling. If the application of this Decree to any Party or circumstance is held by a court of competent jurisdiction to be invalid, the application of this Decree to other Parties or circumstances shall remain in force and shall not be affected thereby.

XXVII. HEADINGS

87. Any section or paragraph heading in this Decree is provided solely as a matter of convenience to the reader and shall not be construed to alter the meaning of any provision of this Decree.

XXVIII. NOTICE OF DECREE

88. The Parties agree to cooperate in good faith in order to obtain the Court's review and entry of this Decree.

89. Pursuant to 42 U.S.C. § 7604(c)(3), this Decree shall be lodged with the Court and simultaneously presented to the United States for review and comment for a period not to exceed forty five (45) days. After the review period, the Decree may be entered by the Court. If the Decree is not entered by the Court, the Parties shall retain all rights they had in this litigation or under state law before the lodging of the Decree.

90. The Parties agree to cooperate in good faith to obtain prompt review of this Decree by the United States and the Court. If the United States or the Court comment on the Decree, and as a consequence the Decree is not entered, the Parties agree to discuss such comments and attempt to make such revisions as necessary to obtain entry of the Decree.

XXIX. EFFECTIVE DATE

91. This effective date of this Decree shall be the date on which the Court approves and enters this Decree.

XXX. SIGNATORIES AND ASSIGNMENT

92. Each undersigned representative of a Party to this Decree certifies that he or she is fully authorized to enter into the terms and conditions of this Decree and to execute and legally bind such Party to this document.

93. The Parties agree not to oppose entry of this Decree by this Court or challenge any provision of this Decree.

94. If PNM proposes to sell or transfer all or part of its ownership interest in any of San Juan, prior to such sale or transfer PNM shall advise the purchaser or transferee in writing of

the purchaser's or transferee's obligation to comply with the terms of this Decree, and PNM shall send a copy of such written notification to the Plaintiffs and the Department at least thirty (30) days before such proposed sale or transfer.

95. The sale or transfer of all or part of PNM's ownership interest in San Juan, or any modification of its status as operator of San Juan, shall not relieve PNM of its obligations to perform under this Decree unless agreed upon by the Parties.

96. If the Plaintiffs and the Department agree, the Parties and any purchaser or transferee that has become a party defendant to this Decree may execute a modification that relieves PNM of its liability under this Decree with respect to the ownership interest to be sold or transferred, and makes the purchaser or transferee liable for all obligations and liabilities applicable to the purchased or transferred ownership interest.

XXXI. COUNTERPARTS

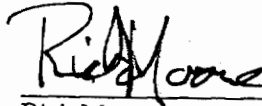
97. This Decree may be signed in counterparts.

The undersigned Parties enter into this Decree and submit it to this Court for approval and entry.

UNITED STATES DISTRICT JUDGE

Dated this ____ day of _____, 2005.

GRAND CANYON TRUST

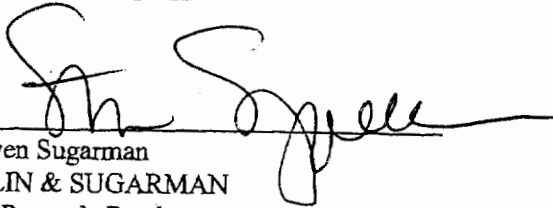


Rick Moore
Associate Director

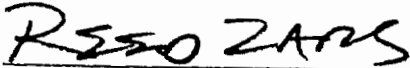
Date:

3/9/05

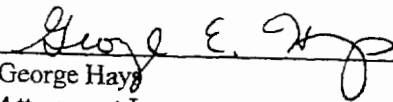
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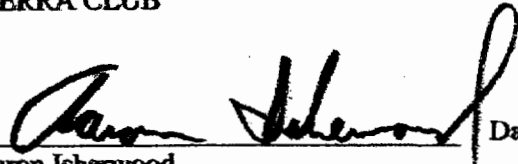
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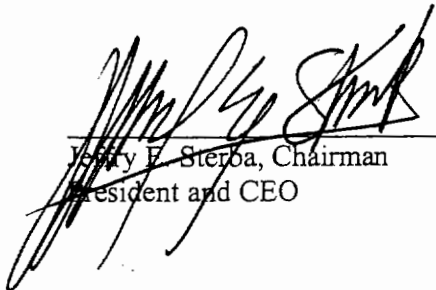
SIERRA CLUB

 Date: March 9, 2005

Aaron Isherwood

Sierra Club Environmental Law Program

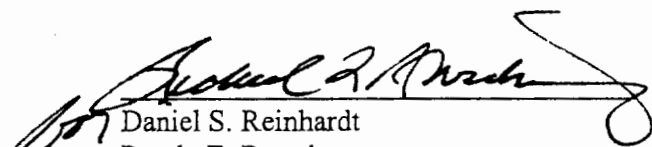
PUBLIC SERVICE COMPANY OF NEW MEXICO



Jerry E. Sterba, Chairman
President and CEO

Date: 3-9-05

Approved as to form:



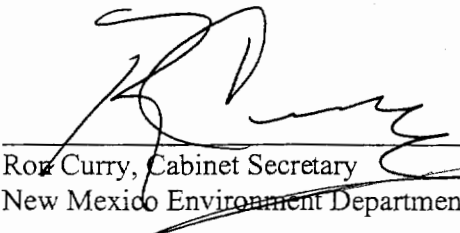
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*Attorneys for Defendant Public Service
Company of New Mexico*

NEW MEXICO ENVIRONMENT DEPARTMENT



Ron Curry, Cabinet Secretary
New Mexico Environment Department

Date:

3/9/05

Approved as to form:



Eric Ames, Esq.
Assistant General Counsel
Special Assistant Attorney General
New Mexico Environment Department
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Appendix D

Detailed Emissions Calculations for FCPP and SJGS

Appendix D Detailed Emissions Calculations for FCPP and SJGS

This appendix contains elements of a spreadsheet used to calculate emissions input to the CALPUFF modeling. The first two pages list the 2000-2004 emissions summary for each unit of the FCPP and SJGS. The data for this 5-year baseline period is then provided for each unit on the next sheet, with additional information derived for PM speciation and other input needed for CALPUFF. The following sheet has similar information for the future emission scenarios. The next page has information regarding the PM10 filterable emission rates and how they were derived. The last page has coal characteristics for the FCPP and SJGS fuel delivered (or projected to be delivered) for the period 2000-2016.

STATE	FACILITY_NAME	ORIS_CODE	UNITID	YEAR	SO2 (TPY)	NOx (TPY)	Heat Input (mmbtu)	Op. Hours	% util.	SO2 (lb/MMBtu)	coal SO2 (lb/mmBTU)	% control	NOx (lb/MMBTU)
NM	Four Corners	2442	1	2000	3618.3	6220.7	15895508	8158	92.9	0.455	1.731	73.7	0.783
NM	Four Corners	2442	1	2001	3566.5	5986.0	14890648	7549	85.9	0.479	1.721	72.2	0.804
NM	Four Corners	2442	1	2002	3113.6	5445.3	13740129	7453	84.8	0.453	1.723	73.7	0.793
NM	Four Corners	2442	1	2003	3111.5	5712.4	14616288	8295	94.4	0.426	1.761	75.8	0.782
NM	Four Corners	2442	1	2004	1398.6	6043.8	14986803	8330	94.8	0.187	1.696	89.0	0.807
				AVG	2961.7	5881.6	14825875	7957	90.6	0.400	1.726	76.9	0.793
NM	Four Corners	2442	2	2000	3628.7	4069.4	16543630	8602	97.9	0.439	1.731	74.7	0.492
NM	Four Corners	2442	2	2001	3965.3	4601.3	15513243	7597	86.5	0.511	1.721	70.3	0.593
NM	Four Corners	2442	2	2002	3345.4	5204.0	16632804	8147	92.7	0.402	1.723	76.6	0.626
NM	Four Corners	2442	2	2003	2941.8	4461.4	14138654	8012	91.2	0.416	1.761	76.4	0.631
NM	Four Corners	2442	2	2004	1345.0	4447.0	13261038	7418	84.4	0.203	1.696	88.0	0.671
				AVG	3045.2	4556.6	15217874	7955	90.6	0.400	1.726	76.8	0.599
NM	Four Corners	2442	3	2000	4139.9	4910.8	17177400	7203	82.0	0.482	1.731	72.2	0.572
NM	Four Corners	2442	3	2001	5246.9	6409.7	21567144	8420	95.9	0.487	1.721	71.7	0.594
NM	Four Corners	2442	3	2002	4324.3	5754.0	19873582	8406	95.7	0.435	1.723	74.7	0.579
NM	Four Corners	2442	3	2003	3833.9	5142.5	17341579	7479	85.1	0.442	1.761	74.9	0.593
NM	Four Corners	2442	3	2004	2222.7	6307.5	20819151	8461	96.3	0.214	1.696	87.4	0.606
				AVG	3953.5	5704.9	19355771	7994	91.0	0.409	1.726	76.3	0.589
NM	Four Corners	2442	4	2000	11934.9	14636.3	52194581	6921	78.8	0.457	1.731	73.6	0.561
NM	Four Corners	2442	4	2001	13374.9	16267.8	59728145	8054	91.7	0.448	1.721	74.0	0.545
NM	Four Corners	2442	4	2002	13274.5	16502.8	57787847	8145	92.7	0.459	1.723	73.3	0.571
NM	Four Corners	2442	4	2003	12458.6	16129.3	56712865	8273	94.2	0.439	1.761	75.0	0.569
NM	Four Corners	2442	4	2004	6197.5	9996.6	42188456	6403	72.9	0.294	1.696	82.7	0.474
				AVG	11448.1	14706.6	53722379	7559	86.1	0.426	1.726	75.3	0.548
NM	Four Corners	2442	5	2000	15010.5	16676.1	63396025	8317	94.7	0.474	1.731	72.6	0.526
NM	Four Corners	2442	5	2001	13410.1	14034.8	56316988	8063	91.8	0.476	1.721	72.3	0.498
NM	Four Corners	2442	5	2002	8789.6	8670.8	37592636	5887	67.0	0.468	1.723	72.9	0.461
NM	Four Corners	2442	5	2003	12748.5	13750.9	56065980	8025	91.4	0.455	1.761	74.2	0.491
NM	Four Corners	2442	5	2004	9607.4	13947.4	56059669	8526	97.1	0.343	1.696	79.8	0.498
				AVG	11913.2	13416.0	53886260	7764	88.4	0.442	1.726	74.4	0.498
NM	San Juan	2451	1	2000	5543.4	6188.1	27095586	7853	89.4	0.409	1.697	75.9	0.457
NM	San Juan	2451	1	2001	4265.8	6321.9	29192603	8312	94.6	0.292	1.560	81.3	0.433
NM	San Juan	2451	1	2002	2553.8	5209.7	24550142	7406	84.3	0.208	1.433	85.5	0.424
NM	San Juan	2451	1	2003	2691.9	5487.0	26246963	8231	93.7	0.205	1.502	86.3	0.418
NM	San Juan	2451	1	2004	2448.5	5193.7	24613040	7797	88.8	0.199	1.580	87.4	0.422
				AVG	3500.7	5680.1	26339667	7920	90.2	0.266	1.554	82.9	0.431

STATE	FACILITY_NAME	ORIS_CODE	UNITID	YEAR	SO2 (TPY)	NOx (TPY)	Heat Input (mmbtu)	Op. Hours	% util.	SO2 (lb/MMBtu)	coal SO2 (lb/mmBTU)	% control	NOx (lb/MMBTU)
NM	San Juan	2451	2	2000	5578.8	7049.3	28159438	8250	93.9	0.396	1.697	76.6	0.501
NM	San Juan	2451	2	2001	3350.9	5165.4	24184320	7266	82.7	0.277	1.560	82.2	0.427
NM	San Juan	2451	2	2002	2705.8	5976.0	27460582	8463	96.3	0.197	1.433	86.2	0.435
NM	San Juan	2451	2	2003	2121.1	4832.2	20777977	7100	80.8	0.204	1.502	86.4	0.465
NM	San Juan	2451	2	2004	2979.9	5911.6	25774786	8391	95.5	0.231	1.580	85.4	0.459
				AVG	3347.3	5786.9	25271421	7894	89.9	0.265	1.554	83.0	0.458
NM	San Juan	2451	3	2000	9117.2	8904.7	42153992	8012	91.2	0.433	1.697	74.5	0.422
NM	San Juan	2451	3	2001	6528.3	8004.0	39080313	7531	85.7	0.334	1.560	78.6	0.410
NM	San Juan	2451	3	2002	5589.4	9404.3	43742324	8278	94.2	0.256	1.433	82.2	0.430
NM	San Juan	2451	3	2003	4381.8	7402.8	35256023	7861	89.5	0.249	1.502	83.4	0.420
NM	San Juan	2451	3	2004	4811.0	7329.5	37173742	7769	88.4	0.259	1.580	83.6	0.394
				AVG	6085.5	8209.1	39481279	7890	89.8	0.308	1.554	80.2	0.416
NM	San Juan	2451	4	2000	8647.4	9233.7	44049312	8412	95.8	0.393	1.697	76.9	0.419
NM	San Juan	2451	4	2001	7174.6	8923.0	41938627	7891	89.8	0.342	1.560	78.1	0.426
NM	San Juan	2451	4	2002	5918.7	9762.7	45582346	8405	95.7	0.260	1.433	81.9	0.428
NM	San Juan	2451	4	2003	5356.8	7781.0	37339667	7366	83.9	0.287	1.502	80.9	0.417
NM	San Juan	2451	4	2004	5939.9	8445.4	40545699	8594	97.8	0.293	1.580	81.5	0.417
				AVG	6607.5	8829.2	41891130	8134	92.6	0.315	1.554	79.7	0.422

Base Line 2000-2004 Annual Average Emissions

Facility	Unit	Year	Heat Input (mmbtu) ⁽¹⁾	Op. Hours ⁽¹⁾	% util.	SO ₂ (TPY) ⁽¹⁾	SO ₂ (lb/MMBtu)	Current Coal SO ₂ (lb/mmBTU) ⁽²⁾	% SO ₂ control	NO _x (TPY) ⁽¹⁾	NO _x (lb/MMBTU)	PM ₁₀ Filt. (lb/MMBTU) ⁽³⁾	PM ₁₀ Cond. (lb/MMBTU) ⁽⁴⁾	SO ₄ (lb/MMBTU) ⁽⁴⁾	Organic (lb/MMBtu) ⁽⁴⁾	Elemental Carbon (lb/MMBtu) ⁽⁴⁾	Modeled Emission Rates (lbs/hr)							
																	SO ₂ ⁽⁵⁾	NO _x ⁽⁵⁾	PM ₁₀ Filt. ⁽⁶⁾	PM ₁₀ Cond. ⁽⁷⁾	SO ₄ ⁽⁷⁾	Organic ⁽⁷⁾	Carbon ⁽⁷⁾	Soil ⁽⁷⁾
Four Corners	1	2000-2004	14,825,875	7957	90.6	2961.7	0.400	1.726	76.9%	5881.6	0.793	0.1166	0.3886	0.3109	0.0777	0.0043	744.43	1478.36	217.23	724.08	579.27	144.82	8.04	209.19
Four Corners	2	2000-2004	15,217,874	7955	90.6	3045.2	0.400	1.726	76.8%	4556.6	0.599	0.1204	0.4014	0.3211	0.0803	0.0045	765.60	1145.57	230.34	767.78	614.23	153.56	8.52	221.81
Four Corners	3	2000-2004	19,355,771	7994	91.0	3953.5	0.409	1.726	76.3%	5704.9	0.589	0.1221	0.2442	0.1953	0.0488	0.0045	989.15	1427.33	295.63	591.26	473.01	118.25	10.94	284.69
Four Corners	4	2000-2004	53,722,379	7559	86.1	11448.1	0.426	1.726	75.3%	14706.6	0.548	0.0194	0.0389	0.0311	0.0078	0.0007	3028.91	3891.04	138.22	276.45	221.16	55.29	5.11	133.11
Four Corners	5	2000-2004	53,886,260	7764	88.4	11913.2	0.442	1.726	74.4%	13416.0	0.498	0.0180	0.0361	0.0288	0.0072	0.0007	3068.99	3456.13	125.15	250.30	200.24	50.06	4.63	120.52
San Juan	1	2000-2004	26,339,667	7920	90.2	3500.7	0.266	1.554	82.9%	5680.1	0.431	0.0180	0.0598	0.0479	0.0120	0.0007	884.03	1434.40	59.71	199.02	159.22	39.80	2.21	57.50
San Juan	2	2000-2004	25,271,421	7894	89.9	3347.3	0.265	1.554	83.0%	5786.9	0.458	0.0256	0.0853	0.0682	0.0171	0.0009	848.06	1466.15	81.92	273.08	218.46	54.62	3.03	78.89
San Juan	3	2000-2004	39,481,279	7890	89.8	6085.5	0.308	1.554	80.2%	8209.1	0.416	0.0144	0.0479	0.0383	0.0096	0.0005	1542.56	2080.82	71.89	239.64	191.71	47.93	2.66	69.23
San Juan	4	2000-2004	41,891,130	8134	92.6	6607.5	0.315	1.554	79.7%	8829.2	0.422	0.0113	0.0376	0.0301	0.0075	0.0004	1624.74	2171.03	58.16	193.88	155.10	38.78	2.15	56.01

(1) Data obtained from EPA's Acid Rain Database.

(2) Data provided by BHP.

(3) Calculated using TPY emissions from 1999 NEI and 1999 Heat Input from EPA's Acid Rain Database (see PM₁₀ tab).

(4) Estimated from speciation workbook using filterable lb/MMBtu derived from 1999 NEI and EPA's Acid Rain database.

(5) Estimated from 2000-2004 annual average TPY emissions and utilization reported in the EPA's Acid Rain database.

(6) Estimated from lb/MMBtu emissions as dervied using 1999 NEI and 1999 EPA'sAcid Rain heat input and 2000-2004 annual average heat input from EPA's Acid Rain database.

(7) Estimated from lb/MMBtu emissions as dervied using speciation workbook and 2000-2004 annual average heat input from EPA's Acid Rain database.

Future Annual Average Emissions

Facility	Unit	Year	Heat Input (mmbtu)	Op. Hours	% util.	2011-2016 AVG SO ₂ (TPY) ^{(1),(2)}	Peak SO ₂ (TPY) ^{(1),(2)}	2011-2016 AVG SO ₂ (lb/MMBtu)	Peak SO ₂ (lb/MMBtu)	2011-2016 AVG Coal SO ₂ (lb/mmBTU) ⁽³⁾	NPS Coal SO ₂ (lb/mmBTU)	% SO ₂ control	NO _x (TPY) ⁽⁴⁾	NO _x (lb/MMBTU)	PM ₁₀ Filtr. (lb/MMBTU) ⁽⁵⁾	PM ₁₀ Cond. (lb/MMBTU)	SO _x (lb/MMBTU)	Organic (lb/MMBTU)	Carbon (lb/MMBTU)	Modeled Emission Rates (lbs/hr)								
																				2011-2016 AVG SO ₂	Peak SO ₂	NO _x	PM ₁₀ Filtr.	PM ₁₀ Cond.	SO _x	Organic	Carbon	Soil
Four Corners	1	2010	14,825,875	7957	90.6	1633.6	1957.0	0.220	0.264	1.836	2.200	88%	5881.6	0.793	0.1166	0.3886	0.3109	0.0777	0.0043	410.61	491.90	1478.36	217.23	724.08	579.27	144.82	8.04	209.19
Four Corners	2	2010	15,217,874	7955	90.6	1676.8	2008.8	0.220	0.264	1.836	2.200	88%	4556.6	0.599	0.1204	0.4014	0.3211	0.0803	0.0045	421.56	505.02	1145.57	230.34	767.78	614.23	153.56	8.52	221.81
Four Corners	3	2010	19,355,771	7994	91.0	2132.7	2555.0	0.220	0.264	1.836	2.200	88%	5704.9	0.589	0.1221	0.2442	0.1953	0.0488	0.0045	533.59	639.24	1427.33	295.63	591.26	473.01	118.25	10.94	284.69
Four Corners	4	2010	53,722,379	7559	86.1	5919.4	7091.4	0.220	0.264	1.836	2.200	88%	14706.6	0.548	0.0194	0.0389	0.0311	0.0078	0.0007	1566.15	1876.22	3891.04	138.22	276.45	221.16	55.29	5.11	133.11
Four Corners	5	2010	53,886,260	7764	88.4	5937.5	7113.0	0.220	0.264	1.836	2.200	88%	13416.0	0.498	0.0180	0.0361	0.0288	0.0072	0.0007	1529.57	1832.39	3456.13	125.15	250.30	200.24	50.06	4.63	120.52
San Juan	1	2010	26,339,667	7920	90.2	2097.7	2897.4	0.159	0.220	1.593	2.200	90%	3951.0	0.300	0.0150	0.0300	0.0240	0.0060	0.0006	529.74	731.68	997.74	49.89	99.77	79.82	19.95	1.85	48.04
San Juan	2	2010	25,271,421	7894	89.9	2012.6	2779.9	0.159	0.220	1.593	2.200	90%	3790.7	0.300	0.0150	0.0300	0.0240	0.0060	0.0006	509.92	704.30	960.40	48.02	96.04	76.83	19.21	1.78	46.24
San Juan	3	2010	39,481,279	7890	89.8	3144.3	4342.9	0.159	0.220	1.593	2.200	90%	5922.2	0.300	0.0144	0.0287	0.0230	0.0057	0.0005	797.02	1100.84	1501.15	71.89	143.78	115.03	28.76	2.66	69.23
San Juan	4	2010	41,891,130	8134	92.6	3336.2	4608.0	0.159	0.220	1.593	2.200	90%	6283.7	0.300	0.0113	0.0226	0.0181	0.0045	0.0004	820.36	1133.08	1545.11	58.16	116.33	93.06	23.27	2.15	56.01

(1) For FCPP, calculated based on projected 88% control of SO₂ in 2010 versus 2000-2004 average % control of SO₂.

(2) For SJGS, calculated based on projected 90% control of SO₂ in 2010 versus 2000-2004 average % control of SO₂.

(3) Data provided by BHP.

(4) No change to FCPP emissions. SJGS reduced to 0.30 lb/MMBTU.

(5) No change to FCPP emissions. SJGS reduced to 0.015 lbs/MMBTU if baseline emissions where greater than 0.015 lb/MMBTU, otherwise emissions unchanged

SJGS

Unit	1999 NEI Emissions	EPA Acid Rain Database (1999)		Annual Average PM ₁₀ Emissions (1999 NEI and EPA Acid Rain)	EPA Acid Rain Database (2000-2004 Average)		Annual Average PM ₁₀ Emissions (2000-2004 Average)	Projected PM ₁₀ Emissions (2010)
	PM ₁₀ Filt	Heat Input	Utilization	PM ₁₀ Filt	Heat Input	Utilization	PM ₁₀ Filt	PM ₁₀ Filt
	(TPY)	(mmBtu/year)	(hours/year)	(lbs/mmBtu)	(mmBtu/year)	(hours/year)	(lbs/hr)	(lbs/hr)
1	257	25,689,631	7,860	0.0180	26,339,667	7,920	59.71	49.89
2	367	25,333,201	7,737	0.0256	25,271,421	7,894	81.92	49.89
3	330	44,003,093	8,391	0.0144	39,481,279	7,890	71.89	71.89
4	253	38,965,397	7,618	0.0113	41,891,130	8,134	58.16	58.16

FCPP

Unit	1999 NEI Emissions	EPA Acid Rain Database (1999)		Annual Average PM ₁₀ Emissions (1999 NEI and EPA Acid Rain)	EPA Acid Rain Database (2000-2004 Average)		Annual Average PM ₁₀ Emissions (2000-2004 Average)	Projected PM ₁₀ Emissions (2010)
	PM ₁₀ Filt	Heat Input	Utilization	PM ₁₀ Filt	Heat Input	Utilization	PM ₁₀ Filt	PM ₁₀ Filt
	(TPY)	(mmBtu/year)	(hours/year)	(lbs/mmBtu)	(mmBtu/year)	(hours/year)	(lbs/hr)	(lbs/hr)
1	955	14,365,079	7,681	0.117	14,825,875	7,957	217.23	217.23
2	905	13,489,466	7,861	0.120	15,217,874	7,955	230.34	230.34
3	1281	19,501,245	8,141	0.122	19,355,771	7,994	295.63	295.63
4	648	60,397,513	7,940	0.019	53,722,379	7,559	138.22	138.22
5	626	62,627,013	7,901	0.018	53,886,260	7,764	125.15	125.15

Year	Four Corners					San Juan			
	lbs Sulfur / Ton of Coal	MMBtu / Ton of Coal	lbs Sulfur / MMBtu	lbs SO ₂ / MMBtu		lbs Sulfur / Ton of Coal	MMBtu / Ton of Coal	lbs Sulfur / MMBtu	lbs SO ₂ / MMBtu
2000	15.58	18.00	0.87	1.731		15.88	18.72	0.85	1.697
2001	15.46	17.97	0.86	1.721		14.88	19.08	0.78	1.560
2002	15.28	17.74	0.86	1.723		14.01	19.56	0.72	1.433
2003	15.46	17.56	0.88	1.761		14.49	19.30	0.75	1.502
2004	15.04	17.74	0.85	1.696		15.17	19.20	0.79	1.580
2005	15.55	17.89	0.87	1.738		14.89	19.42	0.77	1.533
2006	15.90	17.87	0.89	1.780		15.22	19.03	0.80	1.600
2007	15.81	17.91	0.88	1.765		13.91	19.22	0.72	1.447
2008	15.60	17.91	0.87	1.742		13.73	19.40	0.71	1.415
2009	15.50	17.89	0.87	1.733		13.46	19.51	0.69	1.380
2010	15.50	17.82	0.87	1.740		13.21	19.28	0.69	1.370
2011	15.70	17.98	0.87	1.746		14.80	18.44	0.80	1.605
2012	16.93	18.01	0.94	1.880		14.11	18.89	0.75	1.494
2013	16.00	18.01	0.89	1.777		17.12	19.43	0.88	1.762
2014	16.10	17.89	0.90	1.800		16.23	19.29	0.84	1.683
2015	16.90	17.76	0.95	1.903		14.99	19.23	0.78	1.559
2016	17.00	17.78	0.96	1.912		14.32	19.70	0.73	1.454
2011-2016 AVG				1.836					1.593